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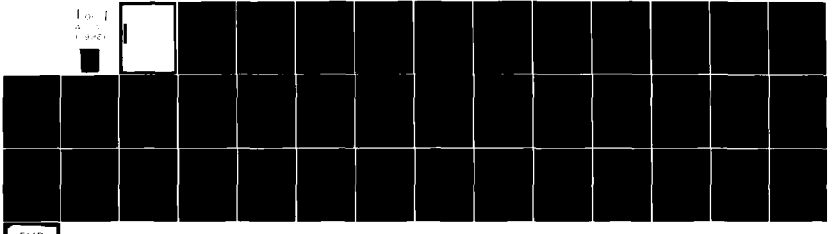

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EMIC ANALYSIS OF ORGANIZATIONAL BEHAVIOR: A RESEARCH PERSPECTIVE AND METHODOLOGICAL TECHNIQUES FROM ANTHROPOLOGY

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 14	2. GOVT ACCESSION NO. AD-A117821	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Emic Analysis of Organizational Behavior: A Research Perspective and Methodological Techniques from Anthropology		5. TYPE OF REPORT & PERIOD COVERED Interim 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Nancy C. Morey and Fred Luthans		8. CONTRACT OR GRANT NUMBER(s) N0014-80-C-0554
9. PERFORMING ORGANIZATION NAME AND ADDRESS Department of Management University of Nebraska Lincoln, Nebraska 68588-0400		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR170-913
11. CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Research Group, Office of Naval Research (Code 442) Arlington, VA 22217		12. REPORT DATE August, 1982 13. NUMBER OF PAGES 31
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Anthropology Research Methods, Emic Analysis, Idiographic Research, Etic Analysis, Ethnoscience, Ethnographic Analysis, Qualitative Analysis

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

After first identifying some of the major issues and limitations of traditional organizational behavior research, an emic (an insider's or subject's view of reality) perspective and ethnoscience methods are proposed. Specific techniques such as domain, taxomic and componetial analyses are given detailed attention. Examples of the application of these anthropological perspectives and techniques to organizational behavior research are included throughout and the limitations are carefully pointed out.

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EMIC ANALYSIS OF ORGANIZATIONAL BEHAVIOR: A RESEARCH PERSPECTIVE AND METHODOLOGICAL TECHNIQUES FROM ANTHROPOLOGY

Organizational behavior research methods and perspectives have come under increasing attack. Representative of some of the major issues that have surfaced in conferences and the literature are the following:

1. Getting beyond single variable causal models or simple dual variable interactive models to an approach that can handle the broader context of interactions of individuals in organizational settings.
2. Determination of the direction of causality, which involves not only the problems mentioned above, but also the necessary inclusion of longitudinal research for determining both direction and origin of causation.
3. Organizational behavior research is in danger of the methods being responsible for "guiding" the theory rather than the other way around.
4. The rigidity of the methods limits the ability of researchers to discover new information about things not preset into their research designs.
5. A priori theorizing, coupled with standard measurement techniques, has produced a fragmentation in data and a potentially serious distortion of research results.
6. The methods in use have produced what has been termed a "person-centered" bias in organizational behavior.
7. The measurement instruments commonly used lack both reliability and validity. They are overly subjective, in spite of attempts at increased precision, measuring people's attitudes, self-perceptions, and distorted recall abilities rather than actual behavior.

8. Lack of practical applicability of the information and results derived from research.

From these critiques some common threads emerge. In particular, the research methodology most often tries to analyze the cognitive states of workers and/or managers (e.g. their attitudes, preferences, beliefs or expectations) and gathers the data through questionnaire methods. As Dubin (1982) recently observed: "Today, much time is frittered away with endless questionnaires trying to probe the mind life of workers, managers, customers, clients, and any other citizens patient or fool-hardy enough to hold still long enough to answer 'always-sometimes-never' kinds of questions" (p. 376).

Among the many proposed solutions to the problems facing the organizational behavior field has been the call for a more ideographic (intensive study of individuals or single cases in natural settings) rather than the dominant nomothetic (study of groups with large "N's" in highly controlled standardized settings) research perspective and qualitative (especially observation-based data gathering) rather than the dominant quantitative (especially questionnaire-based data gathering) methods (Luthans & Davis, 1982). In addition, and compatible with the ideographic perspective and qualitative methods, has been the call for research perspectives and methodologies widely used in the field of anthropology.

Although organizational behavior supposedly draws from all the behavioral sciences, anthropology, mainly because of its holistic approach and observational methodologies, has received far less attention than psychology or sociology. Nomothetically-oriented organizational behavior researchers mostly fear that in gaining the benefits of a more holistic approach to their subject matter they would be giving up control and sacrificing the goals of

scientific hypotheses testing and implications for causality conclusions (Goodman, 1970; McClintock, Brannon, & Maynard-Moody, 1979; Miles, 1979; Jago, 1982).

We suggest that these fears and/or reluctance arise from an insufficient understanding of the nature of anthropological theory building and research. Anthropology has changed dramatically from the early days when graduate students were sent into remote areas with more instructions on what shoes to wear than on how to gather useful information. Theoretical and methodological structures have evolved and tightened in anthropology as much as they have in the other behavioral sciences. In the main, however, this development has been more on a parallel rather than convergent line with the other behavioral sciences. working with different units of analysis, in different settings, anthropological researchers have created a special kind of expertise for dealing with whole systems and for designing research methods and techniques that do not depend upon questionnaire responses. In fact, anthropology probably offers the broadest smorgasbord of qualitative research designs of any behavioral science. Having worked principally within small, local communities as representative of larger cultures/societies, they have devised ways to generalize their data that do not involve random sampling and tightly controlled experimental designs. Qualitative techniques have been central in anthropology. Quantitative techniques have entered in mainly as support for the qalitative rather than vice versa as in the other behavioral sciences and the field of organizational behavior.

We suggest that anthropological perspectives and methodologies can be particularly applicable to those field situations in organizational behavior research where it is appropriate to examine interacting individuals and small

and/or circumscribed groups in natural settings. In addition, use of anthropological methods shows promise for dealing with a problem in the organizational behavior field that may, at least in the long run, have even greater importance than the introduction of a few new research methods. This is the widening gap and polarization between researchers advocating a quantitative/nomothetic orientation and those supporting a qualitative/ ideographic orientation. This gap seems to be increasing, with neither side willing to concede serious points to the other beyond a certin perfunctory level. This could be a prelude to a destructive split in the field unless the two sides can be brought together on the issue of methodology. Lammers (1975) offered a pesimistic observation that no matter how many times there is a call for an "interplay" between nomethetic and ideographic research, researchers will keep right on with the approach they favor, attacking everyone who is doing something different. He suggests that the only way to solve this dilemma is for researchers so inclined to take up both nomothetic and ideographic work at the same time, within the same research project. He calls, in other words, for a "merger" of the two approaches. Others, such as Davis and Luthans (1982), suggest that research should at least go back and forth from ideographic to nomothetic.

The field of anthropology has the makings of such a merger and alternating scheme although it was not easy in coming. Contrary to what is happening in organizational behavior, in anthropology the problem has been to convince researchers to adopt quantitative techniques, of which there has been a traditional suspicion. It has been progressing, however, and results have been so fruitful for theory building and research that a "merger" and alternating scheme is becoming a reality, even though quantitative techniques will probably remain subordinated to the traditionally used qualitative.

Given the success that anthropology has had with the kinds of problems facing organizational behavior research today, we would like to present one of the major methodological approaches with some of its derivative techniques that we feel are particularly relevant and applicable to organizational behavior research. The anthropological approach we have chosen to highlight is one that shows particular promise for being qualitative and ideographic in approach with potential for quantification and for nomothetic explanatory expolitation. It also offers subjective ("insider's view") data of immediate practical utility for managers, but with data gathering techniques that can be objectified for scientific analysis and conslusions. In promoting such techniques, we hope to align ourselves firmly in the middle--between the nomothetic/quantitative and ideographic/qualitative camps--and to show that both approaches are indeed possible and perhaps easier to achieve than might be thought.

The Emic Approach to Research

The methodological stance designated as emic in anthropology seems to have considerable potential for useful application in organizational behavior research. Not only does it include some specific, easily adopted research techniques of great promise, but adoption of the emic perspective, as apposed to an etic "reality", may help clarify some of the key issues in organizational behavior research.

The terms emic and etic in anthropology were originally introduced by a linguist, Kenneth Pike, who coined them using the suffixes of the terms phonemic and phonetic, familiar categories in linguistic analysis. Loosely, these terms distinguish sound structure, as analyzed by a linguist (phonetics) from the meanings of the sounds to the native speaker (phonemics). This

differentiation has carried over into the terms emic and etic as used in modern anthropological research. The term emic has come to denote a general orientation in research centered upon the native, i.e. the insider's or as anthropologists call it the "informant's", view of reality. Thus, the emic approach emphasizes native or respondent categories and meanings in general, and native rules for our respondent behavior in particular. (The psychological and organizational behavior terms "subject" or "respondent" will be used interchangeably with the anthropological terms "native" or "informant" throughout this paper.) Etic is the term used to designate the orientation of the "outside" researcher, who has his/her own categories by which the subject's world is organized. The analytical-descriptive categories of the outside researcher are generally organized with a view toward explanation in the broader, nomothetic sense traditionally used in organizational behavior research. What the emic-etic distinction produeces, in its most extreme instances, is a division between ideographic and nomothetic kinds of perspectives. The fact that it need not remain such, however, is the basis for our suggestion that this methodological approach may provide powerful techniques and explanations for organizational behavior research.

The extreme adherents of the emic viewpoint insist that the subject and not the resarcher is the best judge of the adequacy of the research and analysis. The subject's acceptance of the results of the research is the only necessary and sufficient validation of them (Sturtevant, 1964; Frake, 1980). Correspondingly, extreme adherents of the etic approach believe that only the researcher is the best judge of the adequacy of the description or analysis. The subject's opinion may be interesting, but not really relevant (Harris, 1979).

Most anthropologists fall somewhere between these two extremes, utilizing both emic and etic approaches to complete their total research and analytical designs. As Pelto (1970) indicates, there is an "imbedded emicism" in all anthropological research at the fieldwork level, where native viewpoints, meanings, interpretations, etc. are given great importance for understanding behavior. However, moving inductively up the levels of analysis the anthropologist becomes increasingly etic in approach as the importance of universal categories for comparison becomes predominant. Eventually, emic categories are fitted to etic concepts so that general propositions about human behavior can be tested. Obviously, whichever approach is taken at a given time (emic or etic) will depend upon the questions being asked and the stage at which the fieldwork problem(s) are in. In other words, both approaches are essential for a complete research perspective, but the emic perspective is the one which has been overlooked in most of organizational behavior research and the one that is given specific attention in this paper.

Methodological Techniques of the Emic Approach

Emic approaches have been especially applicable to what is known as "cognitive anthropology". The meaning of the term "cognitive" is not quite the same in anthropology as it is in psychology, although there is some obvious overlap. Psychologists are more interested in the processes of cognition, whereas anthropologists are more often interested in the content. Anthropologists approach the study of cognition with a decidedly inductive emphasis, as contrasted with deductive psychological procedures. Anthropologists tend to focus attention more on language and how it is used to classify the world and to process the environment for people (Durbin, 1973; Laboratory of Comparative Human Cognition, 1978).

Much of cognitive anthropology is concerned with the application of particular techniques centering upon analysis of language categories. This means the use of one or more of a range of roughly similar techniques for eliciting lexical items (words) in a manner designed to produce a view of the world as the subject (native) interprets and categorizes it. This is a direct and effective way to deal with the problems of ethnocentrism (observer bias) in research, and the approach was designed largely to combat such bias (Johnson, 1978). Language is the basic way people have of organizing "reality", their way of putting order into the chaos that surrounds them. Thus, language is the way that the anthropologist begins to probe into the "native" view, to approach an understanding of his/her cognitive world. There are various ways to go about deciphering this cognitive world and to analyze it, but all follow a similar pattern and all derive from common roots in linguistic theory and technique.

Among the more commonly used terms for these emic techniques are ethnosemantics, ethnographic semantics, componential analysis, formal analysis, and ethnographic ethnoscience. These are overlapping techniques, and some are used interchangeably. Ethnosemantics, ethnographic semantics, and ethnographic enthoscience do reflect slightly different emphases, but they are essentially interchangeable terms. They refer to a conscious limitation of research to analysis of primarily verbal categories elicited from respondents. Formal analysis refers to an analytical step following emic elicitation of data in which the data is represented in terms of formal set theory. Componential analysis is a particular technique for analyzing the attributes, or "components", of contrasting sets of lexical items. The entire range of techniques is often encompassed under the cover term ethnoscience.

This comprehensive term "ethnoscience" will be used in the remainder of the paper to represent the more specific methodological techniques in the emic approach to research.

Limitations to Ethnoscience Methods

Similiar to other methodologies, ethnoscience should be careful to not overstate its capabilities and explanatory powers. Before getting into some of the specific procedures of ethnoscience methods, some of the major difficulties, and criticisms of it, should be fully aired. The following points summarize the major issues in ethnoscience of which organizational behavior researchers should be aware.

1. It is argued that emic data relies heavily on language, and that it does not really provide the psychological reality of the subject's world. Ethnoscience researchers no longer claim that they have the one and only methodology. The overzealousness was an influence from traditional linguistics and was dispensed with in light of ethnographic realities. It is now considered sufficient if the method can produce data that can be used to predict behavior, or to provide a useful comparison with behavior. There are a wide variety of possible models of reality that can be derived from any given emic/ethnoscientific research technique. No single one can be guaranteed to represent the real psychological world of the subject(s), but if they work for whatever purpose intended, they are useful. The important fact is that these approaches allow researchers to get much closer to the subject's cognitive world than do etic approaches, and they enable researchers to produce a working model of the system they wish to examine that will be recognizable to the particpants in that system, the "insiders".

2. Emic approaches based on ethnoscience techniques are limited only to verbal behavior and, therefore to "relatively ordered" aspects of the life of the subject. This can be true, but it does not necessarily have to be so. One of the most severe critics of emic approaches acknowledges that ethnoscience techniques are useful for eliciting responses that reveal both conscious and unconscious structures (Harris, 1979). When used properly, ethnoscience has been found to be an extremely useful tool for analyzing unconscious structures underlying the surface content of language. Even the absence of terms in taxonomic structures can be illustrative of important aspects of meaning (Berlin, Breedlove, & Raven, 1968). Anthropologists who have worked at developing these techniques over the years have found them particularly useful for revealing meanings that subjects could not previously express, but which they acknowledged even when they did not know how to explain them. Language can be a useful key to nonverbal behavior as well.
3. Emic and ethnoscience researchers are merely presenting an ideal, as opposed to a real, cultural bias. This had been a problem with early ethnoscientific research. People do tend to verbalize what "ought to be" instead of what "is". However, this can be avoided once the researcher is aware of the dangers. It has, in fact, been exploited in recent years to show some interesting ways in which cognitions (as revealed by ethnoscience) and behavior (as observed) may diverge significantly.

4. Emic, ethnoscience approaches present a synchronic (static) picture of the world. This is definitely a potential problem with the approach. It can, however, be overcome by combining emic with etic analyses; one of the reasons why combinations or sequencing of the two becomes effective. There are as many possibilities for using ethnoscience techniques in diachronic analyses as there are for other methods. Recording subject usage variations over time is an example. Ethnoscience techniques need not be synchronic any more than any other research techniques.

5. Emic (ethnoscience) researchers are often trapped in the linguisticall-based assumption that there is a "right" way to describe a domain (the idealist bias). This has been true in the past, but it can be overcome simply through awareness that there are always individual differences. Even the same subject will vary usage and meaning assigned to lexical items over time. This presents some interesting questions for analysis. The important point to be remembered in order not to fall into this error is that no two people ever share identical cognitions. The more interesting question is how individuals who do not share common knowledge of a system, or common cognitions, can coordinate their interactions within organizations. Wallace (1970), for example, has shown that cognitive non-sharing is essential to such coordination.

6. Emic research is limited to very formal, structured methods, at least in so far as ethnoscience is involved, as opposed to quantitative (statistical, probabilistic) methods. This was true in the early years of ethnoscience, but is ceasing to be so with increasing

application of statistical analyses to emically derived data. Even so, formal methods are not necessarily a weakness. Anthropological theory has advanced, to a large extent, on the basis of such methods. It is contended here that they can contribute new ideas to organizational behavior research, which has been dominated by questionnaire data gathering and quantitiative analyses techniques.

7. Emic (ethnoscience) techniques are too limited to provide adequate explanations by themselves. This is true, and again it is recommended that they should be combined or alternated with etic analyses. Emic data was never meant to provide explanation, only description. It is too situation specific for meaningful comparisons and generalizations. To provide new insights and ideas for generalizations it must be replicated and/or transformed into etic form. It is important, however, to keep emic and etic methods distinct on the operational level. Etic categories should be constructed out of emic ones where necessary, but care should be taken not to distort emic primary data. The world of the observer/researcher and that of the observed/subjects should not be confused. To do so would make the reliability of the data suspect since operations on it could not then be clearly distinguished.

Ethnoscience methodolgies have flourished in anthropological research for over 20 years. The response to the issues outlined above have resulted in the approach becoming increasingly sophisticated. Fewer grand claims are now made for the approach, which once claimed that it heralded a "new ethnography". However, it is recognized that significant results can be obtained from technical and analytical refinements and an increased knowledge of intra-

cultural variations revealed by them. Some of the more specific procedures of this methodology are now presented.

Specific Procedures Used in Ethnoscience Methodology

There are a variety of ways to begin eliciting "emic" data from a subject. Most of the procedures are disarmingly (and deceptively) simple. Perhaps the most direct and powerful is suggested by Hunter and Foley (1976). They start with what could be called the "emic question". The procedure simply involves asking a subject in a field setting what he/she is doing, listing the responses, and then following up with each item on the list with a further question such as: "What kinds of questions does it make sense for me to ask you about _____?" This will eventually produce a host of questions that can be used to pursue each topic further with the first respondent. The procedure can also be used to begin questioning others involved in the same activities in the same cultural setting.

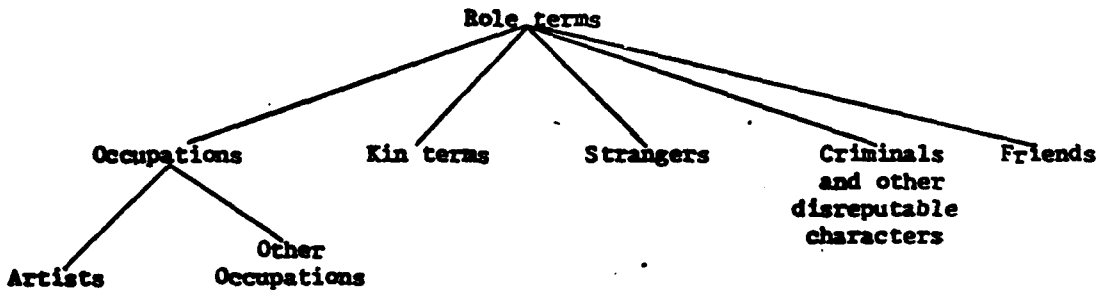
James P. Spradley, with his colleague, David W. McCurdy, has performed the valuable service of operationalizing many of the techniques of ethnoscience in a series of books (Spradley & McCurdy, 1972; Spradley, 1979, 1980). These books give such detailed and easy-to-follow instructions for basic ethnoscience research that even the novice can confidently use this method of investigation. Spradley leads beginners carefully through a series of general steps in gathering data that can become as specific and detailed as the researcher cares to make them. His general steps, outlined in his two books The Ethnographic Interview (1979) and Participant Observation (1980), are the following:

1. Asking descriptive questions which define important cultural settings in the respondent's terms. These questions can also be used to find out more about a sequence of important events. They move from general to specific in a set pattern. Spradley illustrates how to begin using "native language" to minimize etic influence and maximize value from the questions. These descriptive questions, systematically pursued, focus upon all the existing possibilities of the intersection of the nine categories of space, object, act, activity, event, time, actor, goal, and feeling. For instance, an event by time question would be phrased to find out how an event of interest falls into particular time periods. An actor by actor question would request a description of all the "actors" (by whatever term is appropriate) in a cultural setting or event of interest.
2. Making a domain analysis. A domain is any symbolic category that includes other categories, all of which share at least one feature of meaning. Domains consist of a cover term that names the category, a series of included terms linked by a semantic relationship, and a boundary. Such a domain analysis is much more difficult in practice than it would seem from a description of the task. This is principally because investigators have so many of their own preset categories that it is difficult to continue questioning respondents for their own categories. There is a tendency to assume too early (especially in ones own culture) that there is information neeeded, and thus the researcher can miss a great deal of important data. The unfamiliar aspect of domain analysis is likely to be the semantic relationship connection. A semantic relationship is simply the

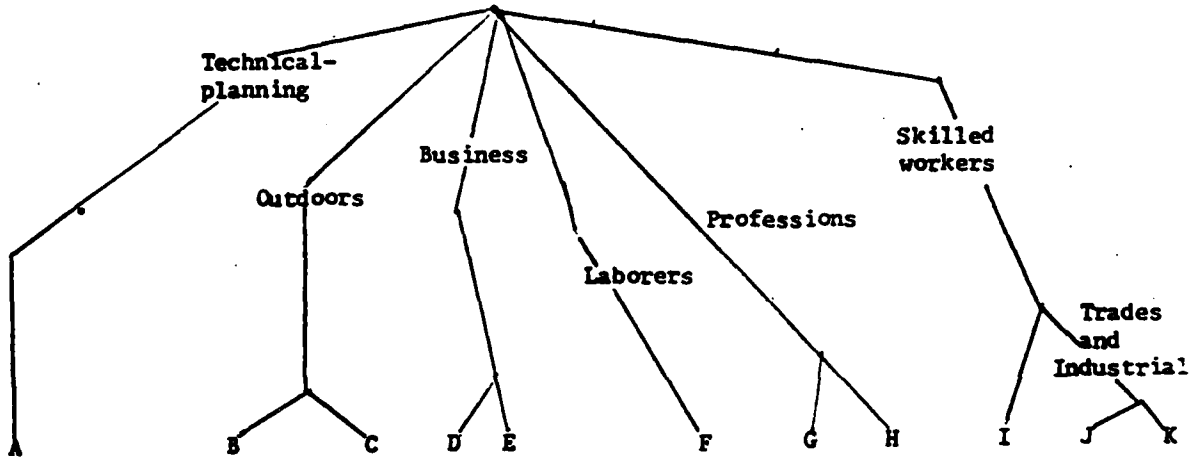
connector between subsets and the domain cover term. If, for example, the researcher is interested in a domain that can be termed dismissal (following Rohlen, 1974), in a Japanese bank, it may be that theft, breaking a major law, and extremely unruly behavior are "included terms" under this domain. These terms are all linked to the domain cover term by the semantic relationship "is a way to", since these activities will lead to dismissal, but almost no others. Other semantic relations might be "is a kind of", "is a part of", etc. Spradley lists several such semantic relationships for which he proposes universal applicability and which are useful for beginning domain analysis.

3. Asking structural questions builds a useful descriptive picture of the cultural scene or event of interest. It is a procedure that finally begins to provide information with potential for quantification and comparison. Such structural questions usually require more explanation than do simple descriptive questions. These are often in the form of examples. Spradley discusses special techniques necessary in asking such questions. He distinguishes five major types of structural questions and several subtypes, all of which have different purposes. Structural questions are reaching further into the organization of a respondent's knowledge. Following the example of the Japanese bank introduced above, further structural questions of the type called "cover term questions" might pursue the domain of "dismissal" by asking: "Are there different kinds of dismissal?", or "Are there different ways to be dismissed?" or "What are all the different steps in dismissal?".

4. Making a taxonomic analysis. In a taxonomic analysis the researcher selects a particular domain for extensive questioning. The goal is to determine all of the inclusive relationships that can be found for that domain. The work of Michael Burton (1972) can be used to demonstrate this procedure. His research dealt with English role terms. One aspect of this study selected the domain of occupation terms for in-depth analysis. He was particularly interested in the correspondence between the meaning of occupation names and his respondents' judgments of them in relation to prestige as an attribute. His first level taxonomy had the following form (p. 58):



His investigation of occupations continued with a technique known as sorting (this procedure is discussed in detail in a later section.) He then submitted his results to a multidimensional scaling analysis. This produced a wide range of interesting information about the data. Principally, however, the researcher was interested in the fact that the three-dimensional representation of his data verified the hypothesis that the criterion of prestige had been used in the respondents' sorting of 60 occupation names. In taxonomic terms, his hierarchical clustering, greatly simplified, created a taxonomy as follows (p. 69):



The letters indicate more specific occupations within the occupational categories distinguished by the analysis.

5. Asking contrast questions. There are several different types of contrast questions explained by Spradley. The basic point behind contrast questions is that the meaning of a symbol can be discovered by finding out how it contrasts with other symbols (in the same domain). Taking just one of these, "rating questions", the researcher can get information about values placed on sets of symbols by asking respondents to make contrasts on the basis of which terms (from the "native" terms you choose) are best, easiest, most difficult, worst, most interesting, most desirable, or whatever other criterion prefered. This would be the type of question to use to pursue what kinds of tasks employees prefer over others. It often creates scales in which items are ranked along the dimension chosen. The important point is that these are emic scales. They derive exclusively from the categories of the respondents; they are

not responses to scales or to categories preset and defined by the researcher or on face validity. Such rating and ranking questions have been used profitably by anthropologists to discover "native" stratification systems, the criteria on which they are based, and the units subsumed in the rankings. Silverman (1966), for instance, was able to use ethnoscience techniques to discover a complex stratification system in an Italian community that ranked families as units on the basis of rispetto (a complex set of deference patterns and attitudes) which had eluded her earlier, more direct, ethnographic techniques. In a preliminary series of interviews she used cards with names of community members that she had people sort into "higher" and "lower" categories (piles). As they did this, she elicited terms and meanings that were associated with the distinctions made. This led to the hypothesis that rispetto was an important criterion for stratification. It also showed her that families, not individuals, were ranked. Then, with an enlarged group of cards containing names of families, and with an expanded sample of respondents, she was able to arrive at a complete stratification system for the community, as well as a determination of the different meaningful social divisions and their principal attributes.

6. Making a componential analysis. A componential analysis is a systematic search for the attributes (components of meaning) of a symbol. Componential analyses are usually represented in the form of paradigms which schematically distinguish all the members of the constrast set in the domain of concern, while showing the multiple relationships between them. In making a componential analysis the

emic-oriented researcher would take all the members of a contrast set that is of interest and discover how they contrast with each other on different dimensions. The purpose here is to find out the attributes and create the contrasts in the set. Returning to the Japanese bank example, if the researcher were interested in doing a componential analysis of categories of employees in the bank, he/she would find that there were a number of dimensions of contrast that would have to be investigated. Employees may be members, quasi members, and non-members of the bank. Each category has certain attributes that create its meaning. There were distinctions in the mode of recruitment of different employee categories, in their means of selection, and a crosscutting dimension of sex which adds further complications in determining attributes (Rohlen, 1974). Any componential analysis of employees would have to consider the interrelationships of all these attributes. A typical, simple componential analysis paradigm might have the form shown below:

Cultural Domain	Dimensions of Contrast		
	I	II	III
Cultural category	$attribute_1$	$attribute_2$	$attribute_3$
Cultural category	$attribute_1$	$attribute_2$	$attribute_3$
Cultural category	$attribute_1$	$attribute_2$	$attribute_3$

The rows contain the attributes associated with a particular domain or subset of a domain. The columns show the dimensions of contrast between domains or their subsets.

The above discussion of the least complex aspects of Spradley's ethnoscience "manuals" provides a general overview of the specific procedures of ethnoscience methodology. There are, of course, other specific techniques.

The Use of Lists. All the techniques in ethnoscience begin with lists of one kind or another. These lists are usually obtained by unstructured interviewing to make certain that the categories (symbols) of which they are composed are as emic as possible. Cole, Gay, Glick and Sharp (1971), for instance, elicited a classification of "things" from respondents in order to use these lists for further kinds of analysis.

Sorting Procedures. Items derived from the lists are often used in one or another type of sorting procedure. Sorting generally involves putting names of the list items on cards and having the respondents categorize them on some basis of interest to them or to the researcher. Respondents may simply be requested to divide the cards into as many piles as they think appropriate. The researcher then questions them to learn the basis for this sorting. The researcher will also try to elicit cover terms that will characterize the individual piles in some manner.

Triad sorting is a special variety of forced choice sorting in which the respondent is given three cards at a time and asked to pick the two that are most similar to each other, eliminating the one least similar. When the choice is made, the researcher attempts to find out the basis for it. This is one way in which componential analysis data can be elicited. A number of other variations on sorting also exist (Pollnac, 1975).

The Use of Frames. Eliciting frames, or sentence frames, or substitution frames, are constructed to elicit the kinds of information Spradley refers to in his categories of descriptive questions, structural questions, and contrast

questions. Sentence frames are simply "fill-in-the-blank" types of questions. The researcher varies the key element in the sentence to see how respondents vary their responses to the restricted framework. Frames are constructed by listening to natural conversation and selecting phrases to test with "native" respondents to be certain that they make sense. Usually they are only fragments of sentences. When used within the same domain, sentence frames can be combined and recombined to see what patterns emerge in responses.

Returning to the Japanese bank example, to find out more about the types of employees and their attributes, the researcher using an ethnoscience approach might design sentence frames with the form "Quasi-members work in offices." Since quasi-members, according to the analysis of Rohlen (1974), never work in the bank offices, but do only support work as custodians, cooks, etc., the investigator would expect that some word such as "never" would be elicited as response to that question frame. Question frames can also be used as tests of information. The researcher could, for instance, vary the above question by stating, "Quasi-members sometimes do office work". The response from the subject would be to correct this mistatement and supply the proper term "never" in place of "sometimes". This frame can be varied by substituting the terms members or non-members for quasi-members. The verb could be changed or the location for work could be changed. There are a whole series of ways in which a sentence or substitution frame can be varied to elicit contrasting, but detailed, information of a limited cultural domain.

Remember, the reason that the above procedures are followed is to remain in the realm of <u>emic</u> data, and not to impose the researcher's <u>etic</u> categories

on the data gathering process. For this reason, direct questions about bank membership should not be made. They would be too directive, and would run the risk of contaminating the results with etic categories.

The techniques that have been discussed so far include both verbal and nonverbal eliciting procedures. The different varieties of sorting are nonverbal techniques which often have the effect of producing categories that the subjects did not previously acknowledge nor realize consciously. They are sometimes as surprised as the researcher at the results that emerge. Subjects may have difficulty eliciting verbal explanations of the sorting decisions they have made. Statistical techniques like multidimensional scaling and other multivariate analyses may then be especially useful to help discern the patterns involved in the choices. Johnson (1978) and others (Kay, 1971; Pollnac & Hickman, 1975; Sankoff, 1971) provide useful guidance in the application of statistical techniques for analyzing ethnoscience data.

Ethnoscience Findings from Anthropology with Implications for the study of Organizational Behavior

There are many findings that have emerged from ethnoscience research in anthropology that seem to have some relevance for the field of organizational behavior. Two of the more important, and by way of example, are the lack of correlation between cognitions and behavior and intra-cultural diversity.

The Lack of Relationship Between Cognitions and Behaviors

One of the most important findings relevant to the organizational behaivor field that has emerged from ethnoscientific methods, and the entire emic approach in general, is the lack of demonstrated correlation between measured cognitions and behavior. This incongruence seems to hold whether the cognitions deal with people's attitudes, values, norms, statements about their

own behavior, or statements about other people's behavior. There are a variety of explanations for this at different levels of analysis, but the fact remains that the differences are there.

An example of this research is the work of Harris and associates who set up a project in New York City in which they contracted with families to put TV cameras in their homes to record their day-by-day behaviors. Subsequent analyses of these films, when compared with information obtained from family members about their behavior, showed wide divergence between the two kinds of data. This even extended to such seemingly concrete things as eating habits and food use. The results of these studies led to the conclusion that there are significant discrepancies between what people do and what they say they do (i.e., between emic and etic observational results) (Pelto and Pelto, 1978).

In another study Cancian (1975) used a variety of ethnoscience verbal and nonverbal elicitation techniques in a study of norms (defined as "collective perceptions or beliefs") related to social identity. Her conclusions, after long-term study, were that there was no relationship between norms and the behaviors of people. A thorough search of the literature led her to the further conclusion that "The main finding of more than four decades of research on attitudes and behavior is that there is no clear relationship between them" (pp. 110-111). This conclusion extended into the areas of moral values, altruism, and reports on behavior in relation to observed behavior. Her explanation is that norms are "not located in individuals", rather, they represent shared understandings about proper behavior that serve as guides by which people validate their chosen social identities (p. 137). The conclusion from this research is that groups have norms, but individuals do not. Individuals merely make decisions about whether or not to conform to group norms.

D'Andrade (1973, 1974) reports that direct observations of small group behavior, recorded at the time, differed significantly from reports of behavior given 10 to 15 minutes later by both the observer (a psychologist) and the group participants. An additional interesting finding of the studies was that when participants were asked to rate the behavior coding categories for similarities and differences, their responses showed a pattern that was much closer to their memory of interactions than either was to their observed behavior. In other words, people tended to have certain patterned ideas about behavior which they shared, but these ideas had little to do with actual behavior, in spite of their relationship to recall of behavior.

There are, of course, many other studies that have at least indirect implications for the cognitions--behavior relationship. For example, Freilich (1970) suggested that anthropologists should distinguish "operational rules" from cultural rules when he found that people often did not behave in accord with the cultural rules that they verbalized. And finally, Johnson (1974) compared a cognitive paradigm of land use with behavioral data among Brazilian sharecroppers. Even with such seemingly straight-forward data he found several discrepancies between rules for behavior and actual behavior. His data allowed him to predict conditions under which the rules would be broken.

The Predominance of Intra-Cultural Diversity

Another important finding for the organizational behavior field that emerges from the use of ethnoscience techniques is the extent of intracultural diversity in cognitions of whatever type (Thompson and Roper, 1980).

Wallace has been cautioning anthropologists for years to be aware of the importance of what he terms the "organization of diversity" in cultures. He insists that the crucial problem for investigation is how deverse groups of

humans with widely differing cognitions ever come to unite into functioning cultural/social units. He has effectively shown that "cognitive sharing" is not a logical, functional, nor necessary requirement for social interaction. In fact, he feels human societies may actually require nonsharing of certain cognitions or they will simply not "work". As one example, he cites the necessary mutual misunderstanding in certain complementary roles such as doctor-patient or performer-audience (Wallace 1970). The same may be said of superior-subordinate or line manager-staff specialist in an organizational behavior context.

The basic lesson from the intra-cultural studies is that knowledge of cultural, or even individual, rules is not sufficient to explain and predict variations in human behavior in all situations. Situations where it can be done seem to be quite limited in scope and duration. Pelto and Pelto (1975) recommend network analysis to unravel the important linkages between the individual and his/her social system by identifying the central social relationships for the individual. They caution, however, that this will have no value without attention to the other environmental (ecological) factors affecting behavior.

Conclusions

Since the field or organizational behavior is currently pre[illegible]ied with psychological independent (e.g., expectancies or personality attributes) and dependent (e.g., job satisfaction or organizational comittment), variables, an emic analysis of these variables would seem to be especially fruitful for the field. Since a traditional assumption is that such psychological variables influence/cause certain kinds of organizational behavior, an opportunity to test these relationships more directly through use of ethnoscience techniques

would seem to be a valuable contribution. Such testing, however, should not be limited to emic data alone. The testing of specific hypotheses about organizational behavior must emphasize the total context within which the behavior takes place. Credibility of the data, even of statistical analyses, is enhanced by addition of a large body of qualitative data, especially of contextual data derived from ethnoscience methods.

An emic perspective would view organizations as cultural systems and apply full blown cultural field work methods of research in all their richness and complexity. This may not realistically occur in researching organizational behavior. The next best strategy is the more limited, but still valid, application of a variety of ethnoscience eliciting techniques to produce, at minimum, a number of emically derived "person-centered" variables for further research. The ethnoscience methods described in this paper provides a way to gain a holistic view of smaller, specific cultural scenes of interest to organizational behavior research and understanding.

Shared cultural codes can be derived through ethnoscience. The only problem is that is is not yet known to what extent these affect behavior. This is a valuable area for research. When behavior and cognitions are the focus for research and there is evidence that they do not always converge, then the areas where they do converge become significant. Whereas we would argue that behavior is the proper unit of analysis in the field of organizational behavior, ethnoscience methods from anthropology can provide increasing evidence of the role that cognitions do play. Maybe this research will indicate that cognitions mediate between behavior and the exogenous variables that had prior importance in determining the nature of the cognitions. These and many other hypotheses can be tested by taking an emic perspective and using ethnoscience techniques.

There are three specific advantages that can be summarized for the use of ethnoscience techniques in organizational behavior research:

1. They are qualitative techniques that are not limited to qualitative analytical manipulations. They can produce quantifiable data.

2. They are ideographic techniques with nomothetic potential.

3. They are subjective (emic) techniques that can be objectified (etic).

In direct contrast to organizational behavior research to date, anthropological research has generally been considered to be strong on validity but weak on reliability (Pelto, 1970). Ethnoscience techniques incorporate many of the elements of anthropological research which produce strong validity and thus can greatly contribute to this deficiency in organizational behavior research. By the same token, by careful operationalization of the ethnoscience techniques, some of the problems of reliability that have plagued anthropological research can also be aided by the perspectives and techniques of traditional organizational behavior research.

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